

ABSTRACT

An apparatus for sonoporation for transdermal delivery of a microparticles suspension containing microencapsulated drugs includes a container containing said microparticles suspension and an ultrasound horn having a tip submerged in said microparticles suspension containing microencapsulated drug or the like. The ultrasound radiation is applied to generate cavitation bubbles, thus causing pores to be formed in the skin of a patient. The ultrasound radiation intensity and distance from the skin are also effective in generating ultrasonic jets driving the microparticles through the formed pores into the skin. The ultrasound radiation is desirably applied at a frequency other than a resonant frequency of the microparticles to avoid rupturing them.